INTERANNUAL VARIABILITY OF ZOOPLANKTON BIOMASS AND STRUCTURE IN RÍA DE VIGO (GALIZA, NW SPAIN) AND ADJACENT SHELF WATERS BETWEEN 1994 AND 2000.

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ABSTRACT.

Changes in zooplankton biomass and structure in relation to hidroclimatological indexes in Ría de Vigo and adjacent shelf waters are presented for the period 1994-2000. Zooplankton biomass showed an inverse relation with NAO, the Gulf Current and upwelling indexes. The interannual variations in zooplankton composition showed a gook correlation to changes in the hidroclimatological indexes. The presence of warm water species of Copepoda (i.e., *Temora stylifera*) and Cladocera (i.e., *Evadne spinifera, Penilia avirostris*) between 1996 and 1998 is reported. In the same years a high abundance of oceanic copepods, such as: *Paraeuchaeta hebes, Centropages chierchiae, Oithona plumifera* and copepodits of *Calanus helgolandicus* have been observed inside Ría de Vigo.

METHODS.

The climatic indexes (NAO and Gulfstream) were taked of webs in INTERNET and the EKMAN transport index were acquired of the paper (Lavin et al., 2000) and Casas, G. (pers. comm.).

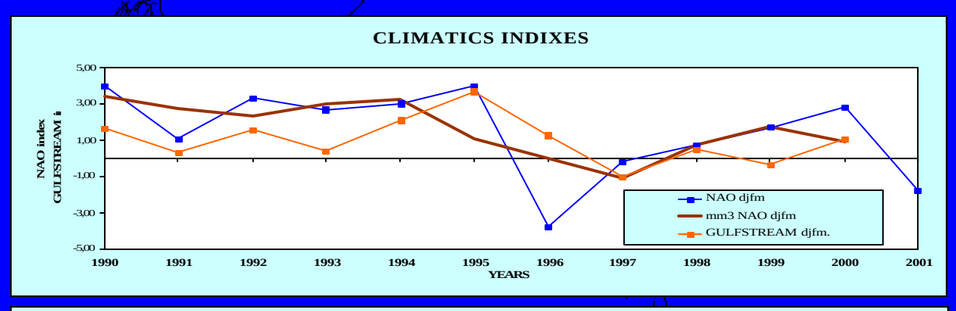
The samples of zooplankton community were recolected monthly in the Ría de Vigo (42º 12.8' N, 08º 51.0' W, depth 39 m) and in adjacent shelf (42º 08.5' N, 08º 57.5' W, depth 97 m) between the years 1994-2000.

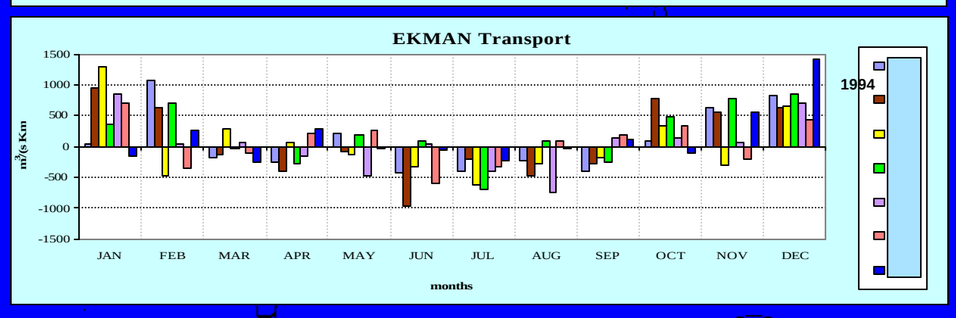
The tows were oblique with BONGO net (meshs of 200 µm) equiped with flowmeters and depthmeter.

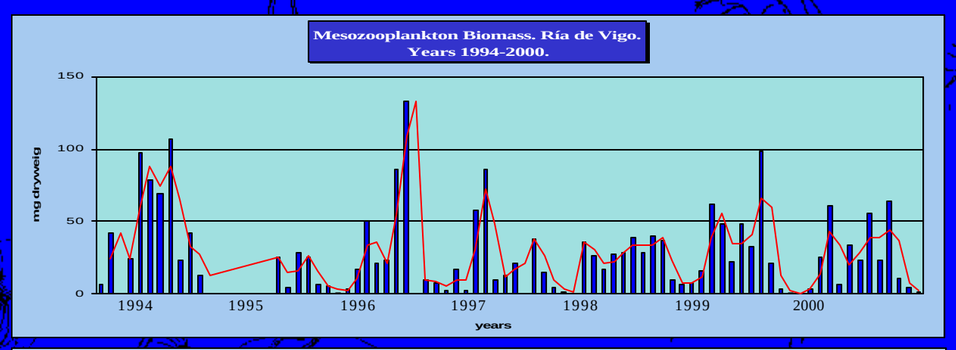
Zooplankton biomass were dried in oven at 60º C during 24 hours.

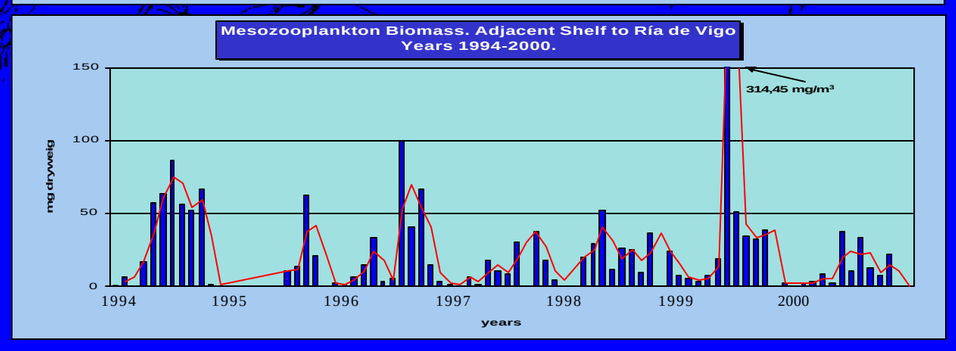
Zooplankton community structure was preserved in formalin 4-5% buffered with BORAX in seawater and was studied in alicuots observed to stereoscope microscope.

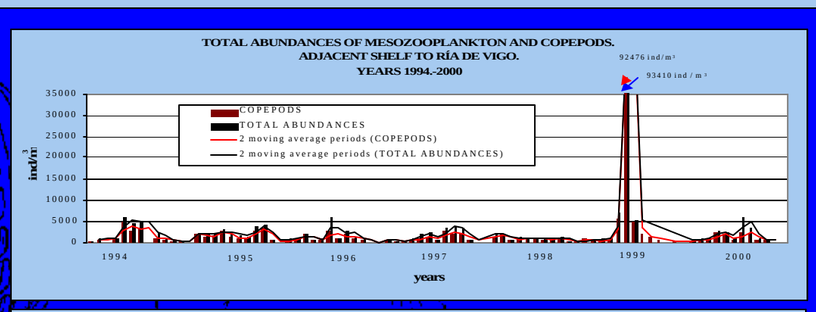
RESULTS.

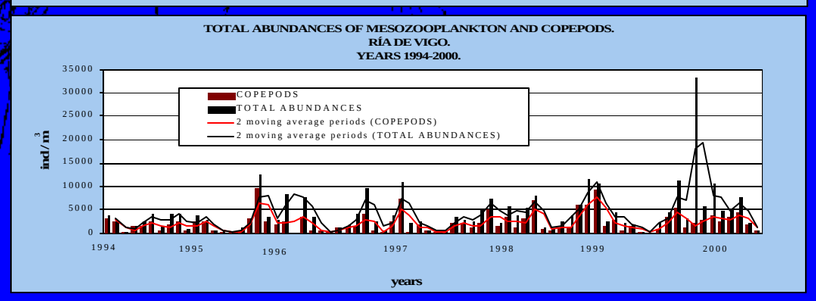


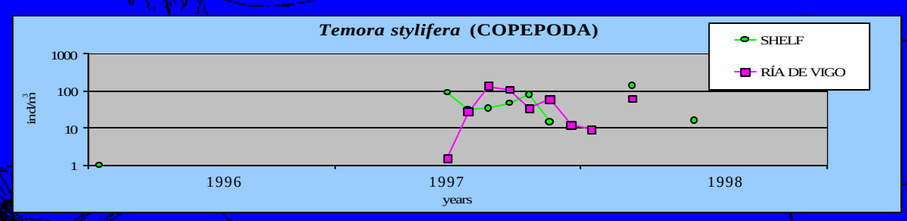


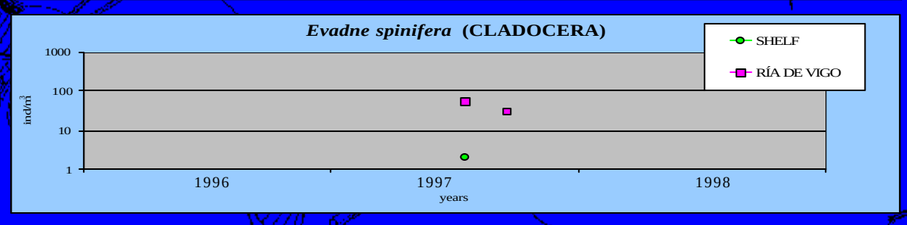


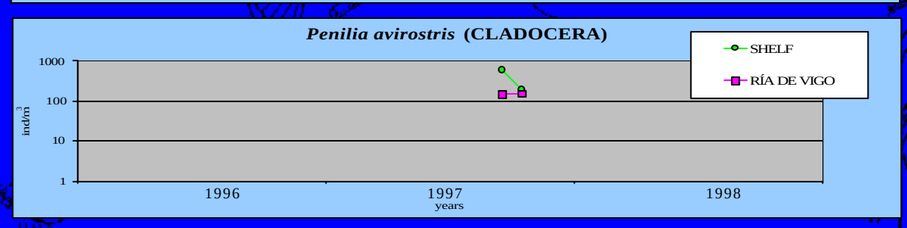


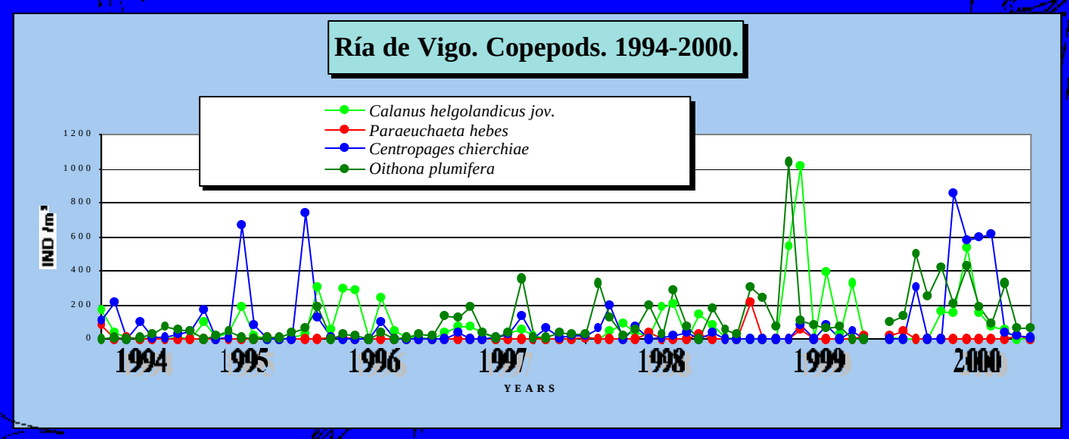












CONCLUSIONS.

Influence of changes in NAO index (Hurrell, J.W. & H. Van Loon, 1997) in variations in zooplancton biomass.

NAO index low implicate MESOZOOPLANKTON BIOMASS high and vice versa.

NAO variations bring about changes in mesozooplankton structure community.

Warm species of COPEPODA (*Temora stylifera*) and CLADOCERA (Penilia avirostris, Evadne spinifera) have been observed in adjacent shelf and Ría de Vigo in the years 1996, 1997 and 1998.

Bigger abundances of oceanic copepods inside of Ría de Vigo

REFERENCES.

Hurrell J.W. & H. Van Loon (1997).- Decadal variations in climate associated with the North Atlantic oscillation. Clim. Change 36, 301-326.

Lavín, A, G. Díaz del Río, G. Casas and J.M. Cabanas (2000).- DATOS y RESUMENES. Institute Español de Oceanografía. Nº 15. 25pp.